

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 1-5 were pending in this application. Claim 1 is independent. New dependent claims 6-10 have been added, support for which is found, *inter alia*, in Figs 4 and 7A. No new matter has been added.

Rejection(s) under 35 U.S.C § 103

An aspect of the present invention is directed to an ice-making machine having a cast-in heater for slightly melting the surface of ice to smoothly discharge the ice following its manufacture in an ice compression head. The invention thereby provides several advantages over other ice-making machines having conventional heaters. The cast-in heating means enables heat to be transmitted reliably to the ice compression head, thus melting the compressed ice such that the ice can be discharged smoothly. The cast-in heater of the present invention provides good thermal conductivity, particularly when constructed of a metallic material as described in the specification. The cast-in heater also has good thermal capacity in that it may be constituted by a mass of material surrounding the heating element. Accordingly, the cast-in heater can respond sufficiently to heat fluctuations around the compression head. The cast-in heater also reinforces the

ice making cylinder around the ice compression head, which is subject to considerable pressure.

The Examiner rejected claims 1-5 under 35 U.S.C. 103(a) as being unpatentable over the Japanese Utility Model 57-128068 ("the Japanese Reference") in view of U.S. Patent 3,383,493 to Gellert ("the Gellert Patent"). Claim 1 has been amended for clarity to specify that the cast-in heater is disposed about and supports an outer peripheral surface of an accommodating portion for the ice compression head of the ice-making cylinder. Dependent claims 2-5 have also been amended for clarity. New claims 6-10 have been added to further define the structure of the cast-in heater in accordance with various disclosed embodiments. To the extent the rejection may apply to the claims as amended, the rejection is respectfully traversed.

The Japanese Reference discloses an auger-type ice making machine having an electrical heating element wound about a head portion thereof, in a manner substantially similar to the prior art discussed in the background of the instant application (see Page 2, Paragraphs [0003] and [0004]). The Japanese Reference is devoid of any showing or teaching of a cast-in heater, nor does the Japanese Reference recognize the advantages obtainable thereby. The Gellert Patent discloses a monolithic heater block for injection molding, and a method of making the same. The object of the Gellert Patent is to produce a *solid* block wherein heat is substantially uniformly distributed throughout the block (see col. 2, line 34). The Gellert Patent does not show or suggest a cast-in heater formed to surround a peripheral portion of another element. Moreover, clearly, the Gellert Patent does not show or suggest anything relating to heaters for auger-type ice makers.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir., 1991). See MPEP § 2143 - § 2143.03.

In the instant case, *none* of these criteria are met. First, the references themselves are plainly devoid of any suggestion of desirability of the asserted combination. Second, because the heater of the Gellert Patent is a solid block, there is no expectation of success in modifying that teaching to produce a cast-in heater surrounding a peripheral portion as claimed. Third, the references, whether taking singly or in combination, fail to show or suggestion the claimed cast-in heater surrounding a peripheral portion. Thus, the examiner has failed to present a *prima facie* case of obviousness.

Moreover, even assuming *arguendo* that the claimed limitations were found in the asserted combination, the rejection is untenable because the Gellert Patent is non-analogous art. In order to rely on a reference for a rejection due to obviousness, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the invention was concerned. *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). The first step of this inquiry is clearly not met, and thus it is necessary to consider whether the Gellert

Patent is reasonably pertinent to the problem with which the invention was concerned, namely, providing uniform heat and support to a peripheral portion of a compression head of an auger-type ice maker. Clearly, it is not. The problem with which the Gellert patent is concerned, as is described at length therein, is to evenly distribute heat throughout a solid block. Thus, Gellert is non-analogous art and cannot be combined with the Japanese Publication under Section 103.

For the reasons set forth above, the Japanese Reference and the Gellert Patent, whether taken singly or in combination, fail to render obvious the invention as claimed in Claim 1. Dependent claims 2-10 are allowable for at least the same reasons. Accordingly, withdrawal of the rejection is respectfully requested.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 07200/040001).

Respectfully submitted,

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